

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX011719\  
 Data File : VX007117.D  
 Acq On : 18 Jan 2019 04:42  
 Operator : JC/SP  
 Sample : K1157-20  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 43 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 BFB

Quant Time: Jan 18 07:31:56 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X010819W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Jan 08 14:06:59 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.67  | 168  | 575431   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.86  | 114  | 893376   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.12 | 117  | 863583   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.08 | 152  | 424632   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 6.07  | 65   | 307071   | 51.06 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 102.12% |          |
| 35) Dibromofluoromethane    | 5.51  | 113  | 275888   | 48.22 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 96.44%  |          |
| 50) Toluene-d8              | 8.71  | 98   | 1085220  | 51.82 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 103.64% |          |
| 62) 4-Bromofluorobenzene    | 11.13 | 95   | 389340   | 53.33 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 106.66% |          |

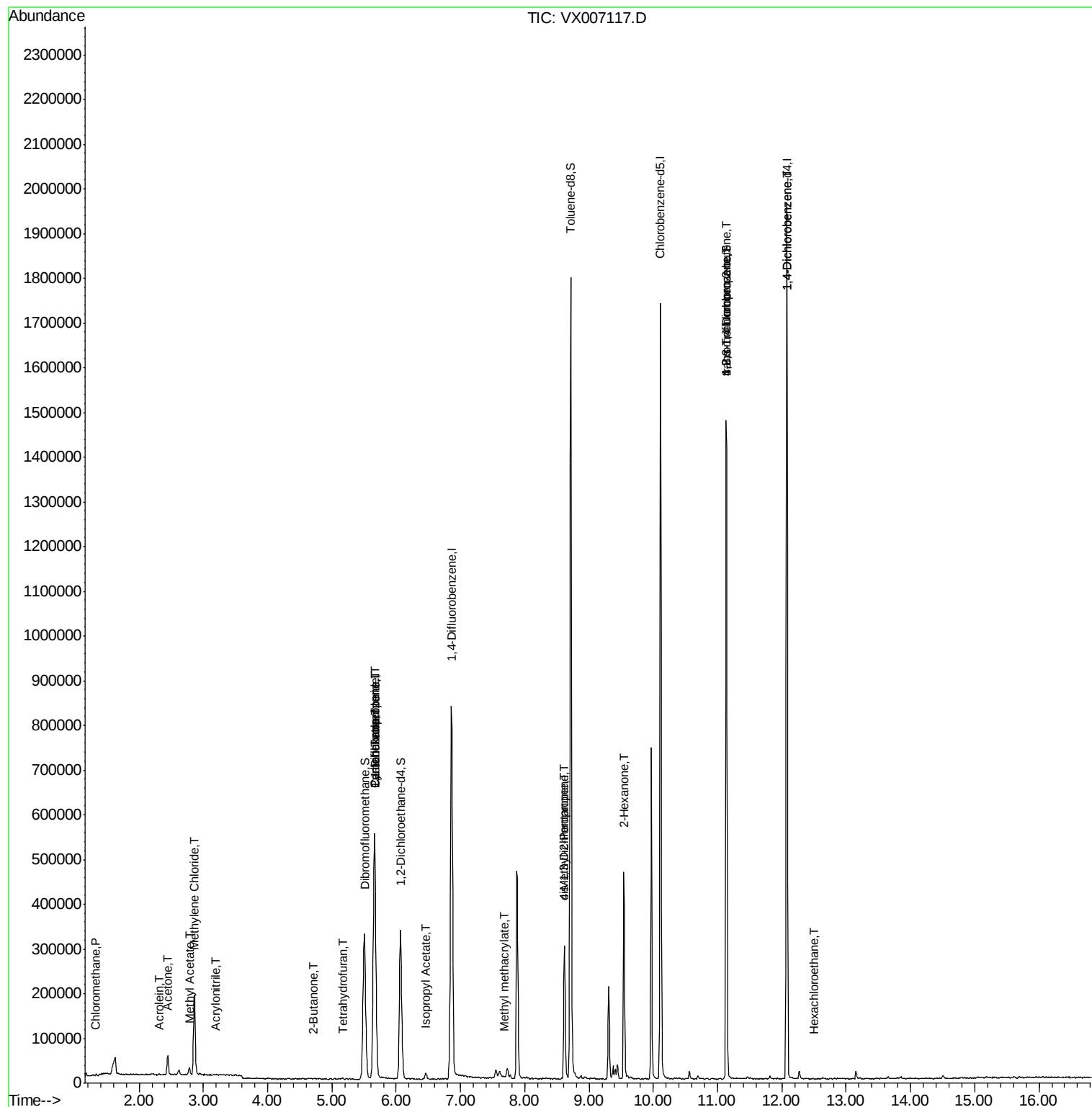
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 3) Chloromethane               | 1.33  | 50   | 2964     | 0.539     | ug/l   | 96     |
| 13) Acrolein                   | 2.31  | 56   | 654      | 4.140     | ug/l # | 66     |
| 15) Acrylonitrile              | 3.18  | 53   | 731      | 0.224     | ug/l # | 33     |
| 16) Acetone                    | 2.45  | 43   | 48244    | 16.227    | ug/l   | 97     |
| 18) Methyl Acetate             | 2.78  | 43   | 21015    | 2.441     | ug/l   | 100    |
| 20) Methylene Chloride         | 2.86  | 84   | 86869    | 14.966    | ug/l   | 97     |
| 25) 2-Butanone                 | 4.70  | 43   | 4625     | 1.087     | ug/l # | 89     |
| 29) Tetrahydrofuran            | 5.17  | 42   | 2212     | 0.800     | ug/l # | 80     |
| 31) Cyclohexane                | 5.66  | 56   | 11058    | 1.304     | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 5.67  | 75   | 35211    | 4.533     | ug/l # | 50     |
| 38) Carbon Tetrachloride       | 5.67  | 117  | 53053    | 6.789     | ug/l # | 13     |
| 43) Isopropyl Acetate          | 6.46  | 43   | 17722    | 1.349     | ug/l   | 97     |
| 48) Methyl methacrylate        | 7.68  | 41   | 5097     | 0.756     | ug/l # | 11     |
| 49) 1,4-Dioxane                | 7.76  | 88   | 238      | Below Cal | #      | 27     |
| 51) 4-Methyl-2-Pentanone       | 8.62  | 43   | 98038    | 11.614    | ug/l # | 50     |
| 54) cis-1,3-Dichloropropene    | 8.62  | 75   | 48559    | 5.563     | ug/l # | 64     |
| 59) 2-Hexanone                 | 9.54  | 43   | 51870    | 8.063     | ug/l # | 54     |
| 76) 1,2,3-Trichloropropane     | 11.13 | 75   | 185186   | 21.521    | ug/l # | 41     |
| 81) trans-1,4-Dichloro-2-buten | 11.13 | 75   | 185186   | 63.816    | ug/l # | 10     |
| 88) 1,4-Dichlorobenzene        | 12.08 | 146  | 871      | 0.206     | ug/l # | 1      |
| 90) Hexachloroethane           | 12.51 | 117  | 53       | 2.920     | ug/l   | 80     |

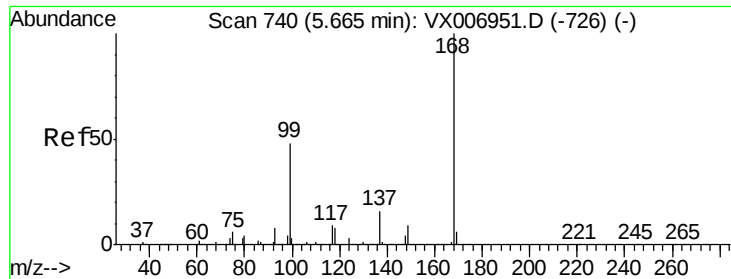
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Instrument :  
MSVOA\_X  
ClientSampled :  
BFB

Quant Time: Jan 18 07:31:56 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_X\METHOD\82X010819W.M  
Quant Title : SW846 8260  
QLast Update : Tue Jan 08 14:06:59 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.67 min Scan# 740

Delta R.T. 0.00 min

Lab File: VX007117.D

Acq: 18 Jan 2019 04:42

Instrument :

MSVOA\_X

ClientSampleId :

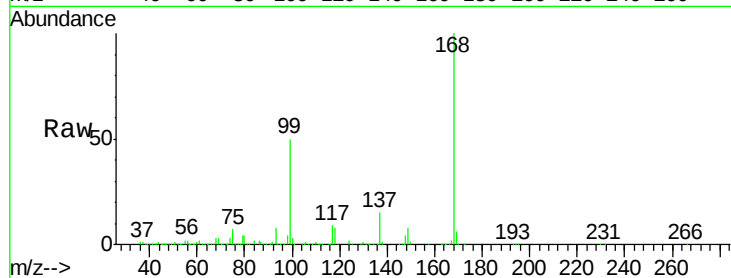
BFB

Tot Ion:168 Resp: 575431

Ion Ratio Lower Upper

168 100

99 50.1 41.8 62.8



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.67

200000

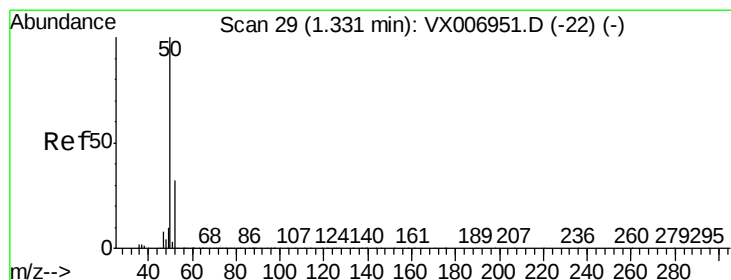
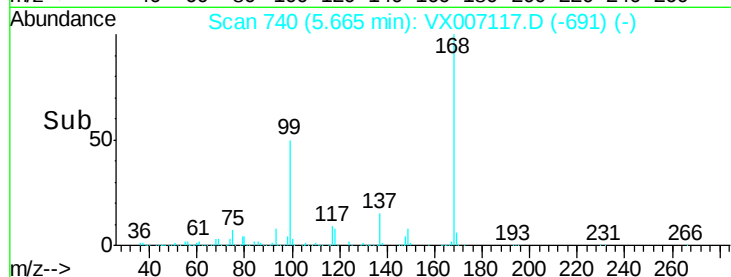
150000

100000

50000

0

Time--> 5.50 5.60 5.70 5.80



#3

Chloromethane

Concen: 0.539 ug/l

RT: 1.33 min Scan# 29

Delta R.T. -0.00 min

Lab File: VX007117.D

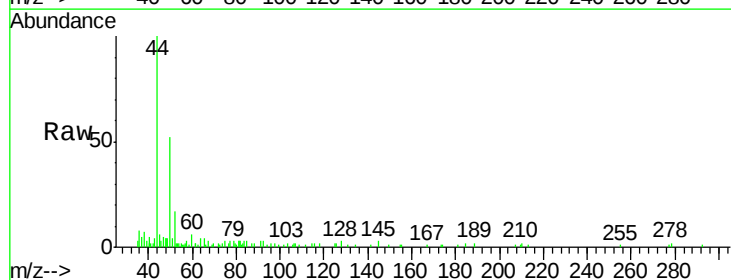
Acq: 18 Jan 2019 04:42

Tgt Ion: 50 Resp: 2964

Ion Ratio Lower Upper

50 100

52 33.9 25.4 38.2



Abundance Ion 49.90 (49.60 to 50.60): VX0

Ion 51.90 (51.60 to 52.60): VX0

1.33

3000

2500

2000

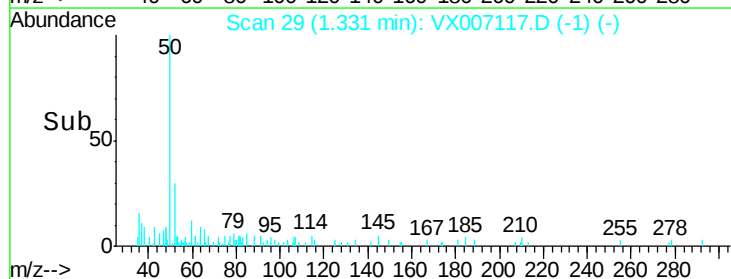
1500

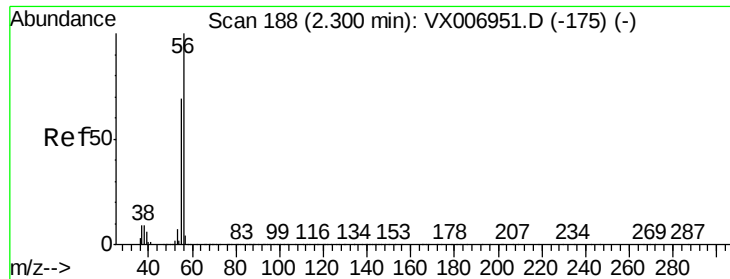
1000

500

0

Time--> 1.30 1.35





#13

Acrolein

Concen: 4.140 ug/l

RT: 2.31 min Scan# 190

Delta R.T. 0.01 min

Lab File: VX007117.D

Acq: 18 Jan 2019 04:42

Instrument :

MSVOA\_X

ClientSampled :

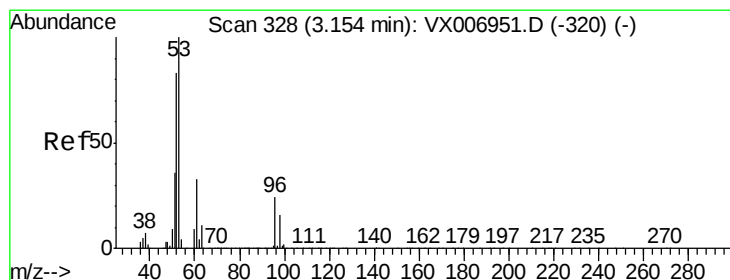
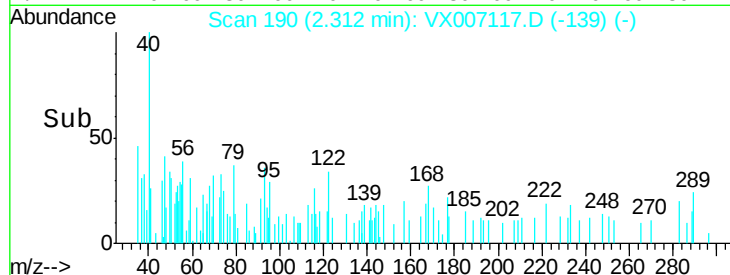
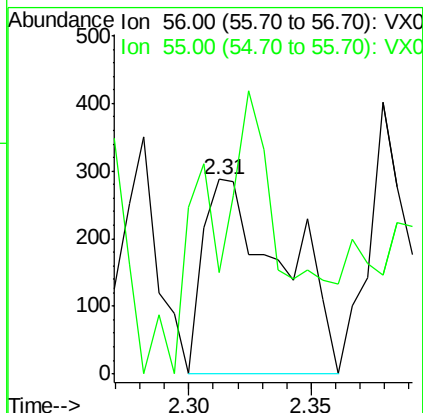
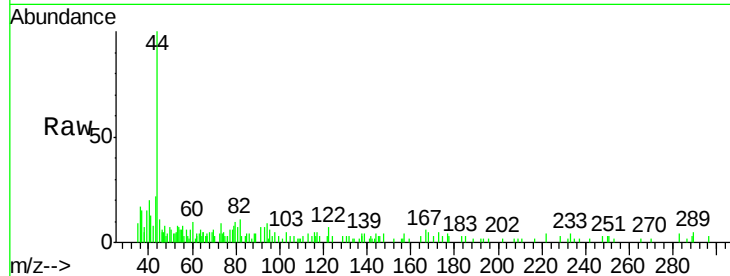
BFB

Tot Ion: 56 Resp: 654

Ion Ratio Lower Upper

56 100

55 44.3 58.2 87.4#



#15

Acrylonitrile

Concen: 0.224 ug/l

RT: 3.18 min Scan# 333

Delta R.T. 0.03 min

Lab File: VX007117.D

Acq: 18 Jan 2019 04:42

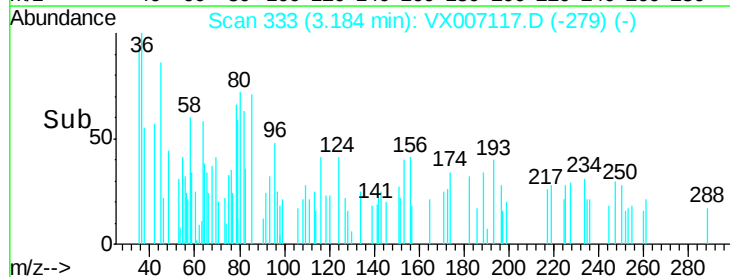
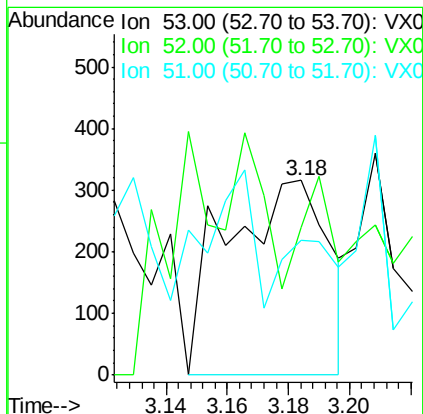
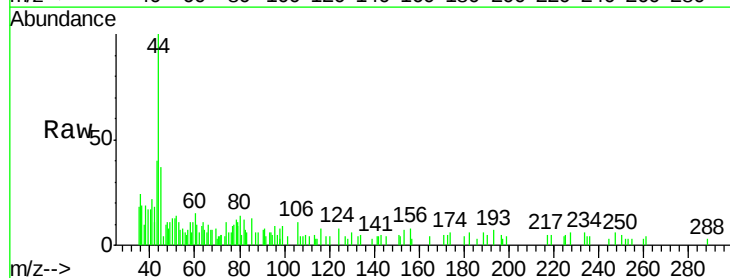
Tgt Ion: 53 Resp: 731

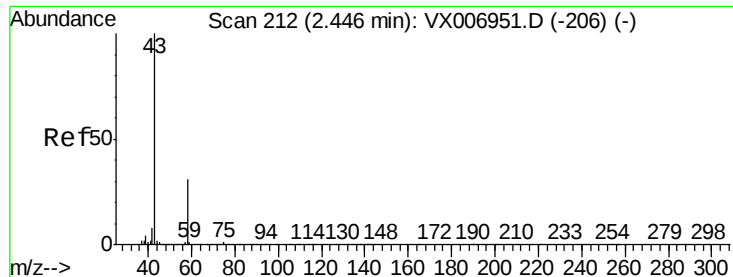
Ion Ratio Lower Upper

53 100

52 20.1 66.0 99.0#

51 0.0 28.6 42.8#





#16

Acetone

Concen: 16.227 ug/l

RT: 2.45 min Scan# 212

Delta R.T. 0.00 min

Lab File: VX007117.D

Acq: 18 Jan 2019 04:42

Instrument :

MSVOA\_X

ClientSampleId :

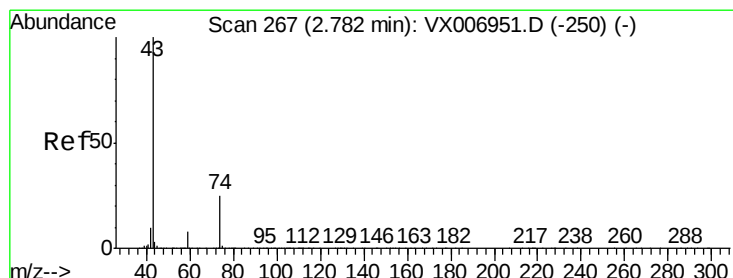
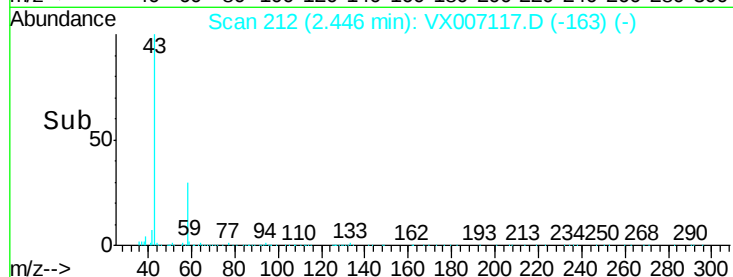
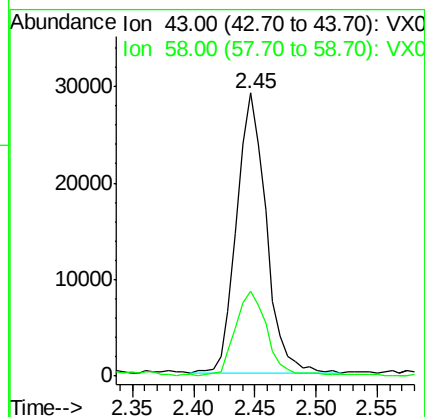
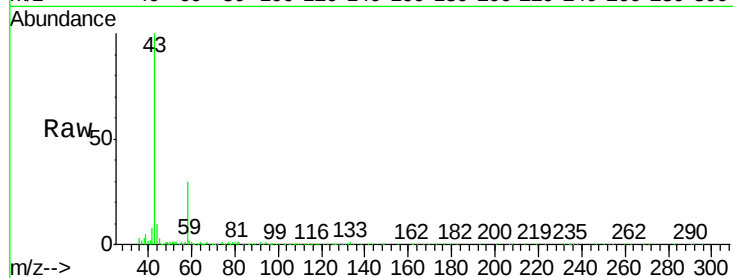
BFB

Tot Ion: 43 Resp: 48244

Ion Ratio Lower Upper

43 100

58 29.7 25.0 37.6



#18

Methyl Acetate

Concen: 2.441 ug/l

RT: 2.78 min Scan# 266

Delta R.T. -0.01 min

Lab File: VX007117.D

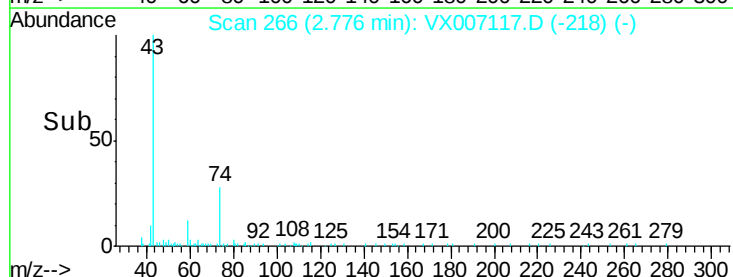
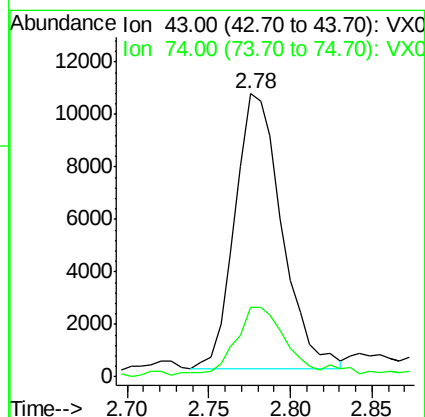
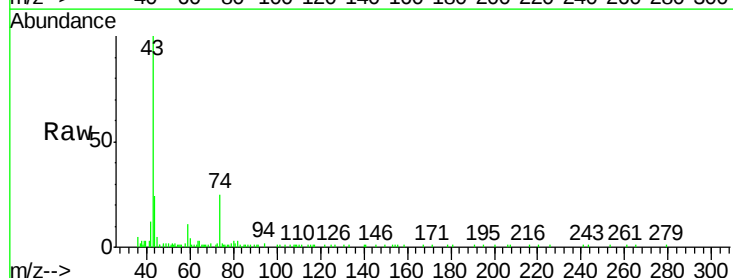
Acq: 18 Jan 2019 04:42

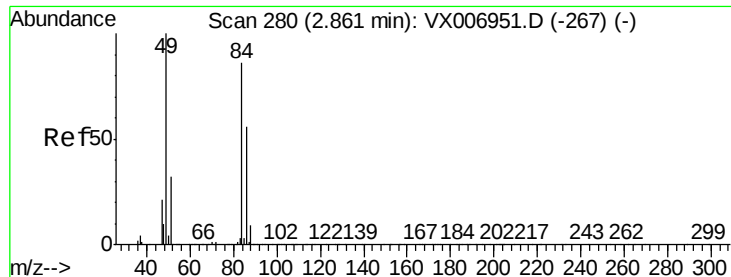
Tgt Ion: 43 Resp: 21015

Ion Ratio Lower Upper

43 100

74 23.5 18.6 28.0





#20

Methylene Chloride

Concen: 14.966 ug/l

RT: 2.86 min Scan# 280

Delta R.T. 0.00 min

Lab File: VX007117.D

Acq: 18 Jan 2019 04:42

Instrument :

MSVOA\_X

ClientSampleId :

BFB

Tot Ion: 84 Resp: 86869

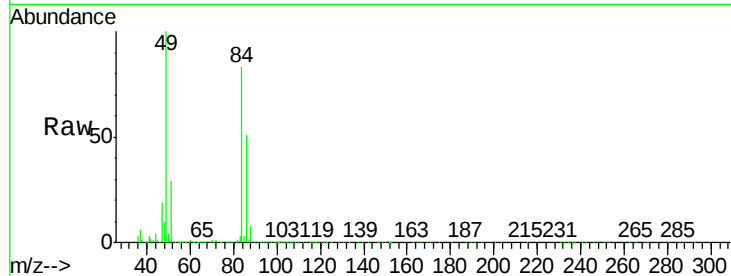
Ion Ratio Lower Upper

84 100

49 119.8 91.8 137.6

51 34.9 28.5 42.7

86 61.4 50.2 75.2

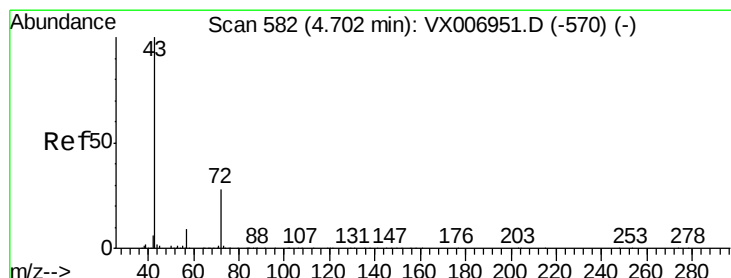
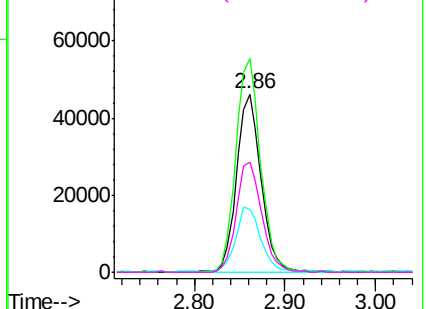
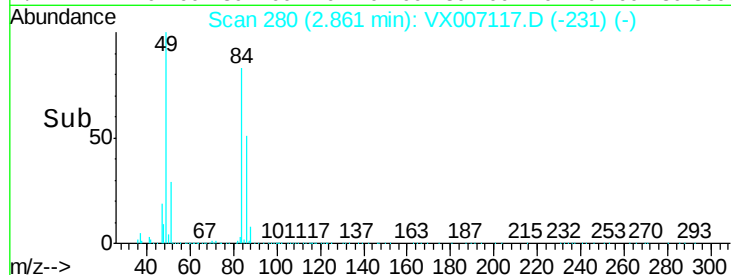


Abundance Ion 83.90 (83.60 to 84.60): VX0

Ion 48.90 (48.60 to 49.60): VX0

Ion 50.90 (50.60 to 51.60): VX0

Ion 85.90 (85.60 to 86.60): VX0



#25

2-Butanone

Concen: 1.087 ug/l

RT: 4.70 min Scan# 582

Delta R.T. 0.00 min

Lab File: VX007117.D

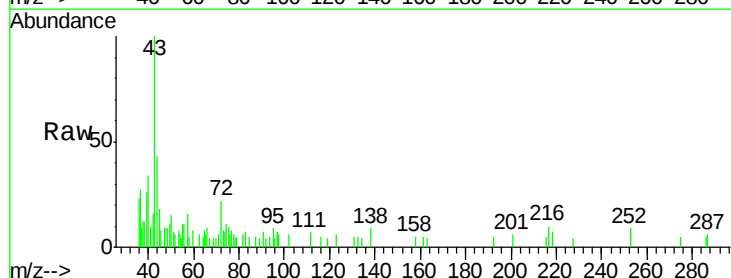
Acq: 18 Jan 2019 04:42

Tgt Ion: 43 Resp: 4625

Ion Ratio Lower Upper

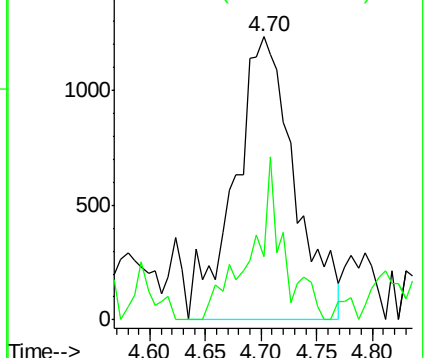
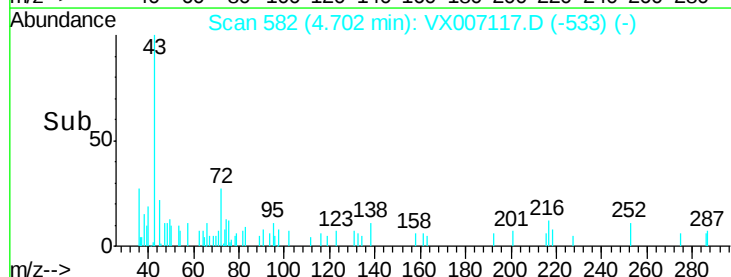
43 100

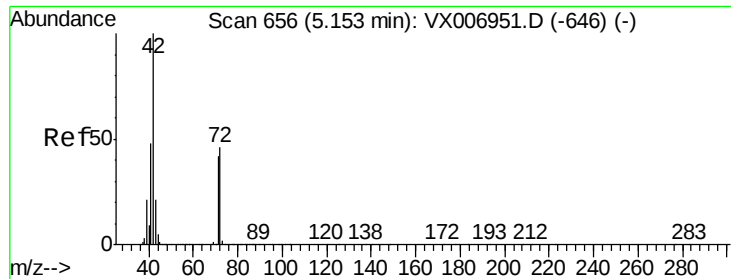
72 22.4 22.4 33.6#



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 72.00 (71.70 to 72.70): VX0





#29

Tetrahydrofuran

Concen: 0.800 ug/l

RT: 5.17 min Scan# 658

Delta R.T. 0.01 min

Lab File: VX007117.D

Acq: 18 Jan 2019 04:42

Instrument :

MSVOA\_X

ClientSampleId :

BFB

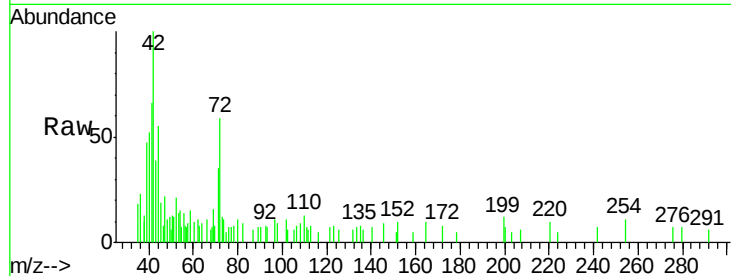
Tot Ion: 42 Resp: 2212

Ion Ratio Lower Upper

42 100

72 64.6 38.9 58.3#

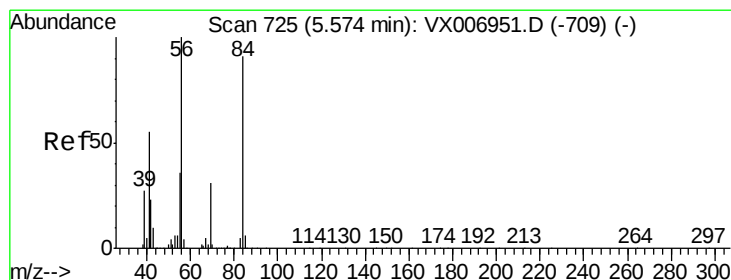
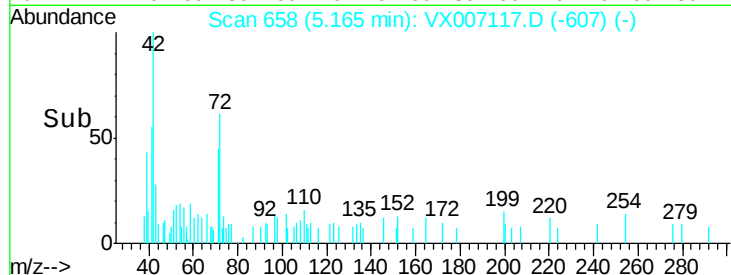
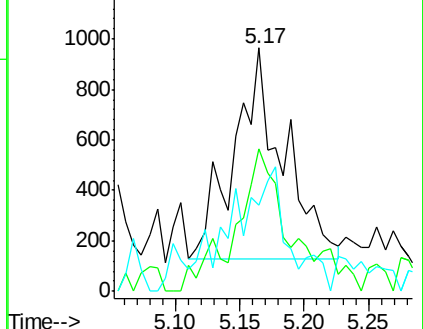
71 34.7 36.2 54.4#



Abundance Ion 42.00 (41.70 to 42.70): VX0

Ion 72.00 (71.70 to 72.70): VX0

Ion 71.00 (70.70 to 71.70): VX0



#31

Cyclohexane

Concen: 1.304 ug/l

RT: 5.66 min Scan# 739

Delta R.T. 0.09 min

Lab File: VX007117.D

Acq: 18 Jan 2019 04:42

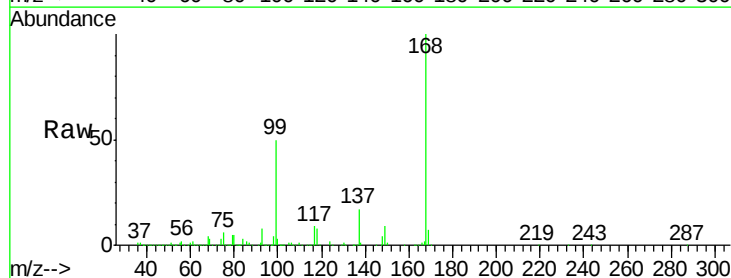
Tgt Ion: 56 Resp: 11058

Ion Ratio Lower Upper

56 100

69 157.8 24.4 36.6#

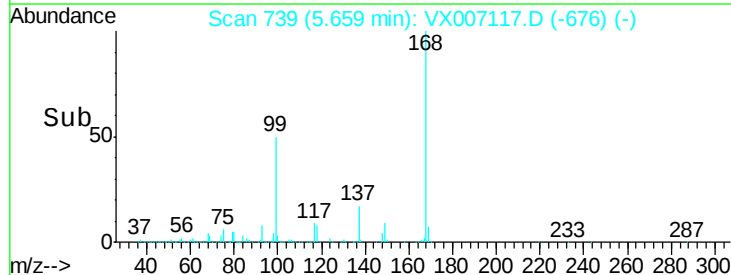
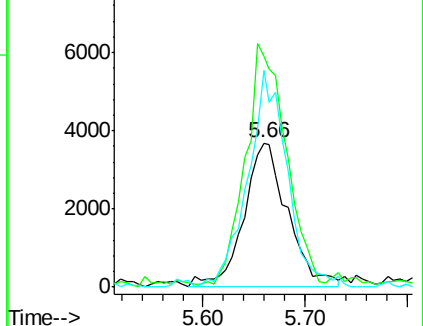
84 145.2 70.0 105.0#

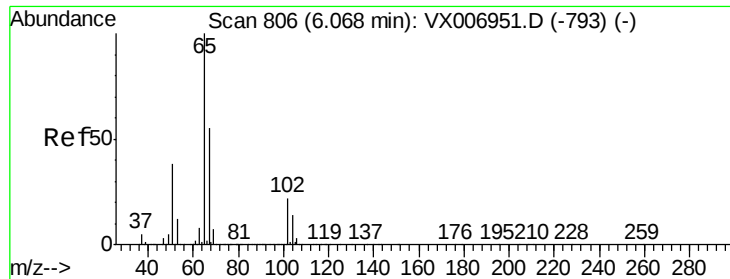


Abundance Ion 56.00 (55.70 to 56.70): VX0

Ion 69.00 (68.70 to 69.70): VX0

Ion 84.00 (83.70 to 84.70): VX0

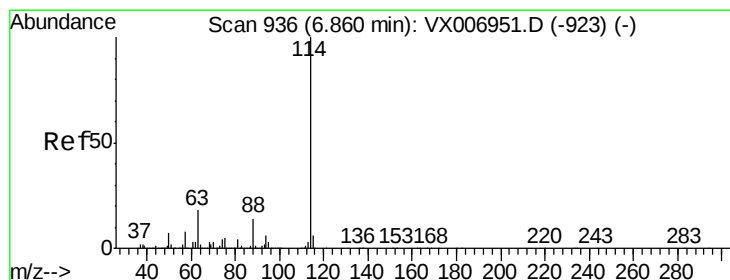
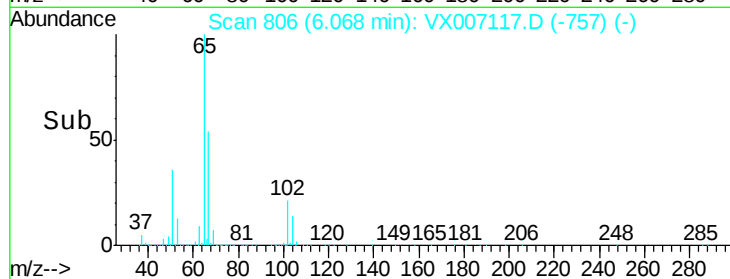
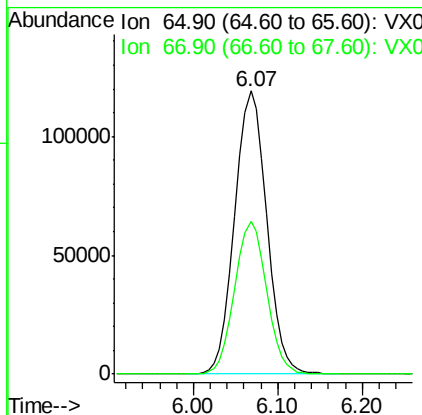
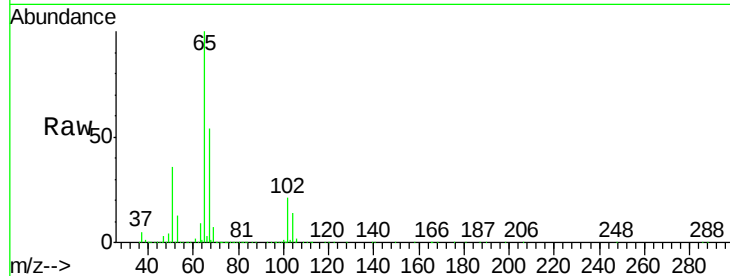




#33  
 1,2-Dichloroethane-d4  
 Concen: 51.062 ug/l  
 RT: 6.07 min Scan# 806  
 Delta R.T. 0.00 min  
 Lab File: VX007117.D  
 Acq: 18 Jan 2019 04:42

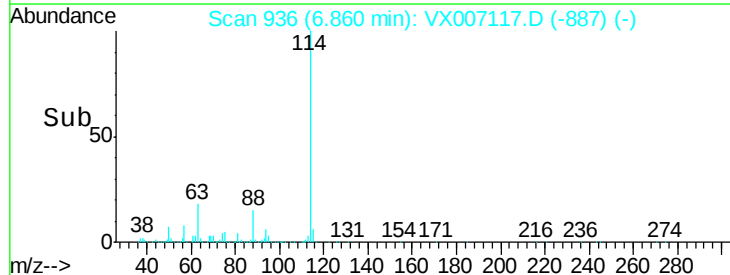
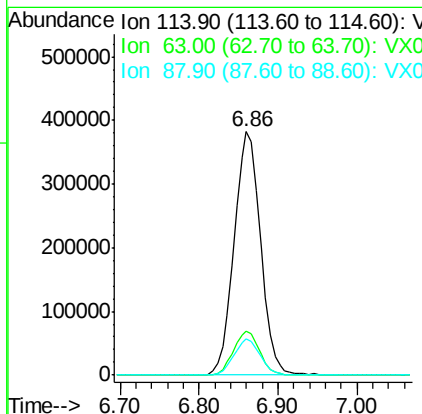
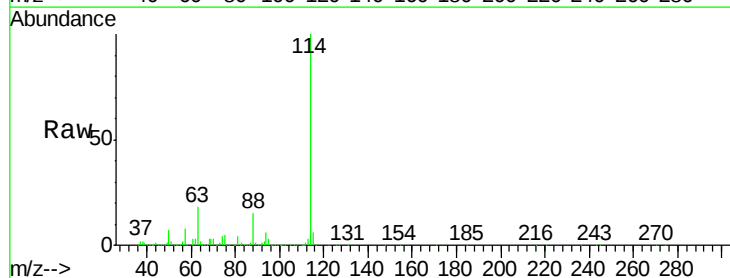
Instrument :  
 MSVOA\_X  
 ClientSampled :  
 BFB

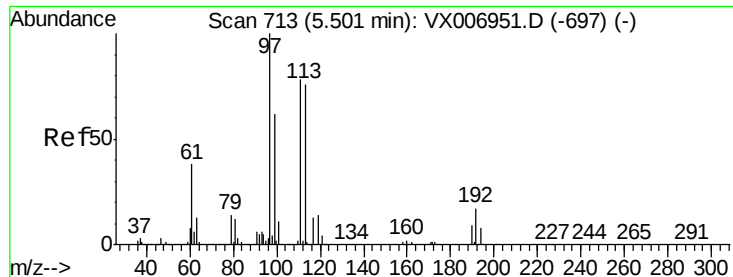
Tot Ion: 65 Resp: 307071  
 Ion Ratio Lower Upper  
 65 100  
 67 53.8 0.0 105.0



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 6.86 min Scan# 936  
 Delta R.T. 0.00 min  
 Lab File: VX007117.D  
 Acq: 18 Jan 2019 04:42

Tgt Ion: 114 Resp: 893376  
 Ion Ratio Lower Upper  
 114 100  
 63 18.2 0.0 34.8  
 88 14.8 0.0 28.8





#35

Dibromofluoromethane

Concen: 48.223 ug/l

RT: 5.51 min Scan# 714

Delta R.T. 0.01 min

Lab File: VX007117.D

Acq: 18 Jan 2019 04:42

Instrument :

MSVOA\_X

ClientSampleId :

BFB

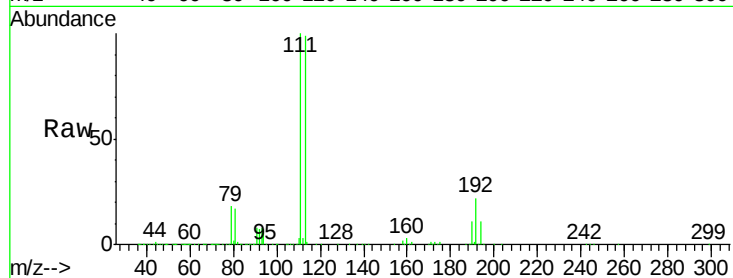
Tot Ion:113 Resp: 275888

Ion Ratio Lower Upper

113 100

111 101.4 81.6 122.4

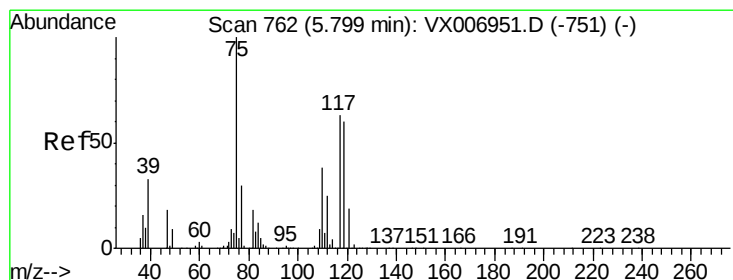
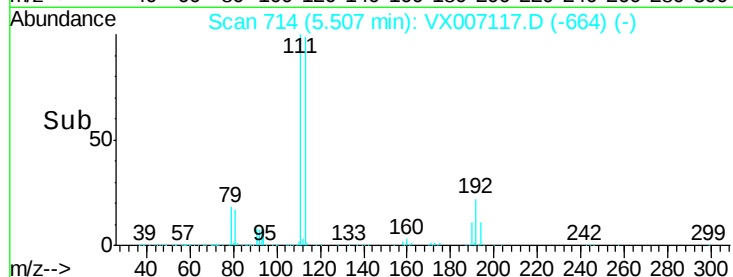
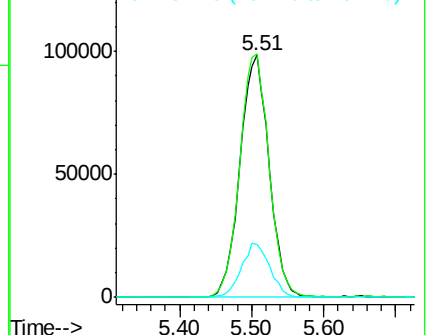
192 21.8 16.7 25.1



Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V



#36

1,1-Dichloropropene

Concen: 4.533 ug/l

RT: 5.67 min Scan# 740

Delta R.T. -0.13 min

Lab File: VX007117.D

Acq: 18 Jan 2019 04:42

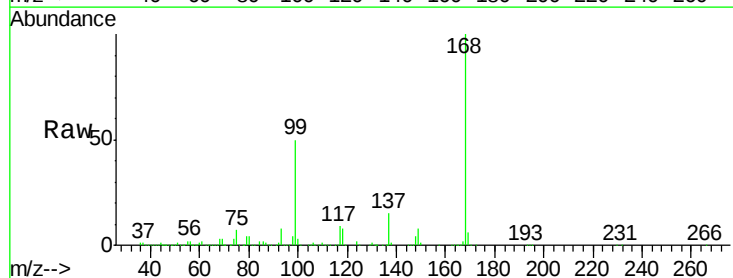
Tgt Ion: 75 Resp: 35211

Ion Ratio Lower Upper

75 100

110 11.2 20.2 60.5#

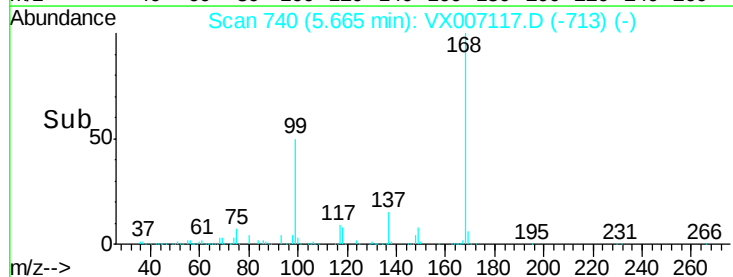
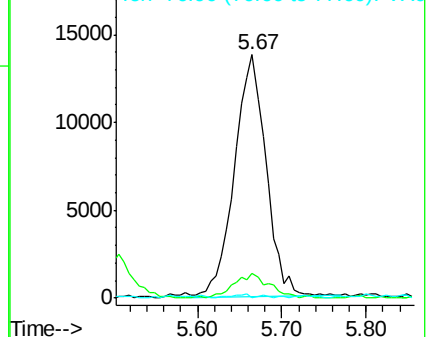
77 1.1 24.8 37.2#

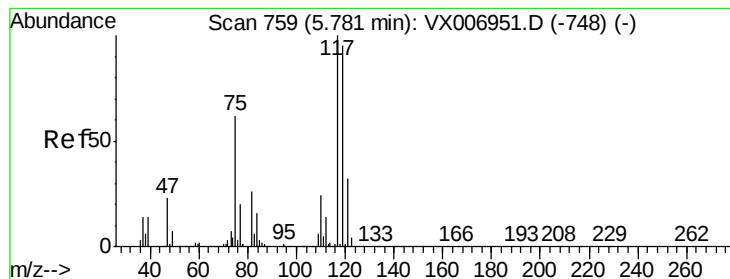


Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 109.90 (109.60 to 110.60): V

Ion 76.90 (76.60 to 77.60): VX0





#38

Carbon Tetrachloride

Concen: 6.789 ug/l

RT: 5.67 min Scan# 740

Delta R.T. -0.12 min

Lab File: VX007117.D

Acq: 18 Jan 2019 04:42

Instrument :

MSVOA\_X

ClientSampled :

BFB

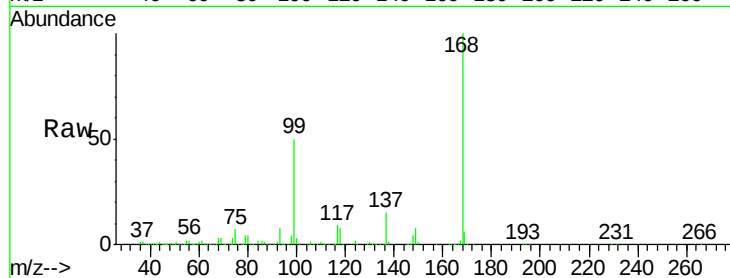
Tot Ion:117 Resp: 53053

Ion Ratio Lower Upper

117 100

119 3.3 79.4 119.2#

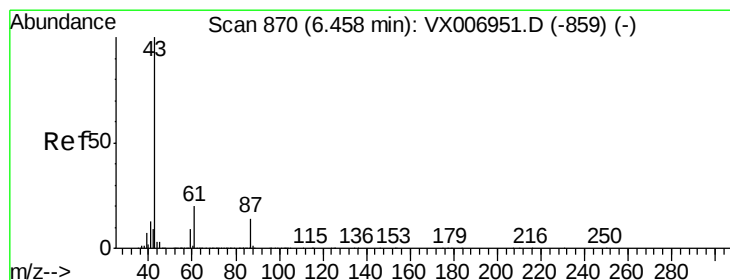
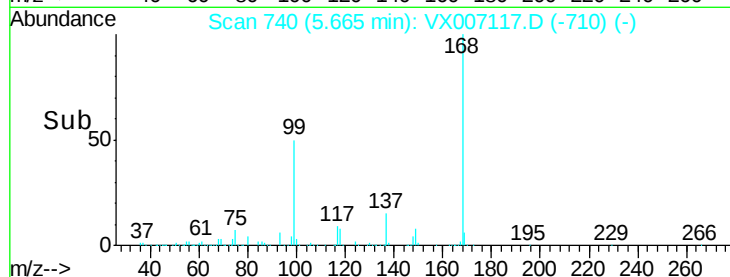
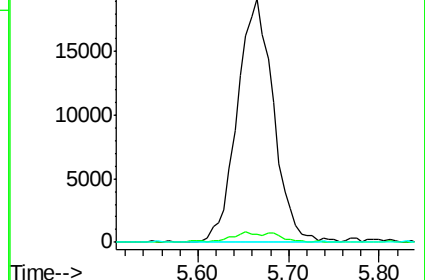
121 0.0 24.0 36.0#



Abundance Ion 116.80 (116.50 to 117.50): V

Ion 118.80 (118.50 to 119.50): V

Ion 120.80 (120.50 to 121.50): V



#43

Isopropyl Acetate

Concen: 1.349 ug/l

RT: 6.46 min Scan# 870

Delta R.T. 0.00 min

Lab File: VX007117.D

Acq: 18 Jan 2019 04:42

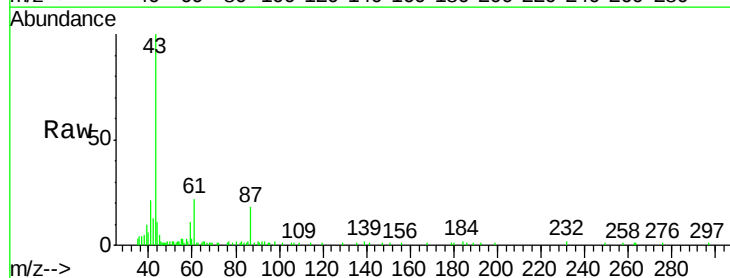
Tgt Ion: 43 Resp: 17722

Ion Ratio Lower Upper

43 100

61 22.6 16.8 25.2

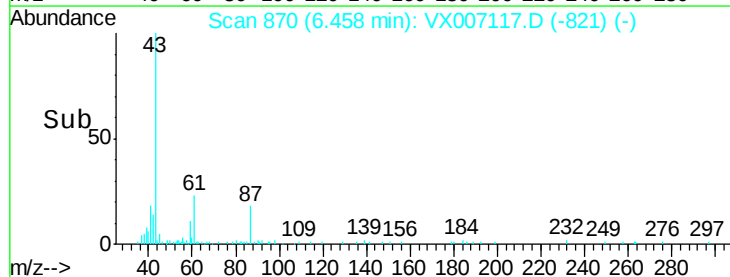
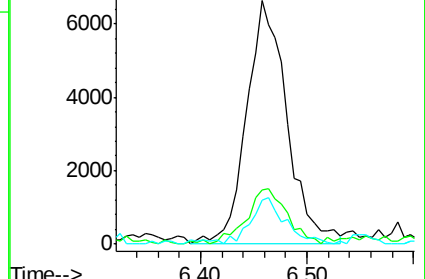
87 16.1 12.4 18.6

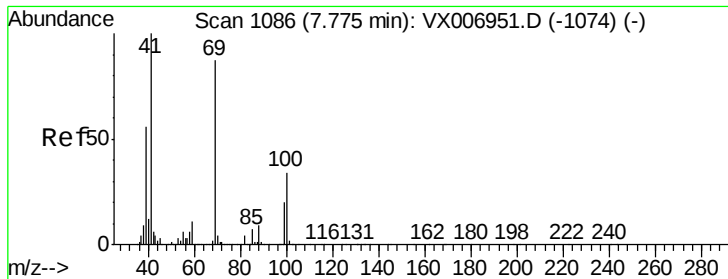


Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 61.00 (60.70 to 61.70): VX0

Ion 87.00 (86.70 to 87.70): VX0





#48

Methvl methacrylate

Concen: 0.756 ug/l

RT: 7.68 min Scan# 1071

Delta R.T. -0.09 min

Lab File: VX007117.D

Acq: 18 Jan 2019 04:42

Instrument :

MSVOA\_X

ClientSampleId :

BFB

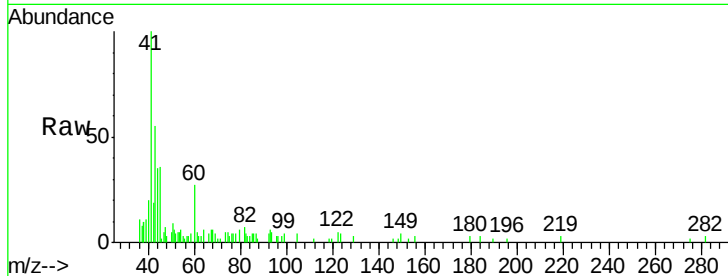
Tot Ion: 41 Resp: 5097

Ion Ratio Lower Upper

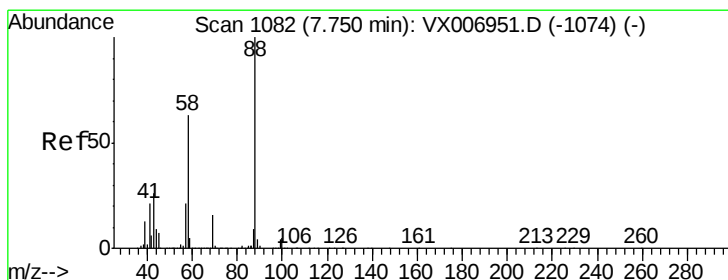
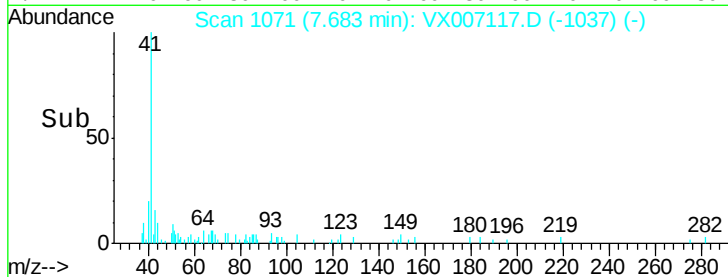
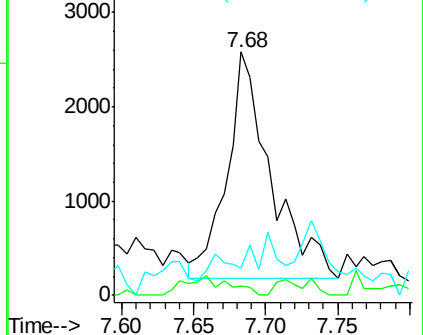
41 100

69 0.0 72.4 108.6#

39 0.0 45.8 68.8#



Abundance Ion 41.00 (40.70 to 41.70): VX0  
Ion 69.00 (68.70 to 69.70): VX0  
Ion 39.00 (38.70 to 39.70): VX0



#49

1,4-Dioxane

Concen: Below Cal

RT: 7.76 min Scan# 1084

Delta R.T. 0.01 min

Lab File: VX007117.D

Acq: 18 Jan 2019 04:42

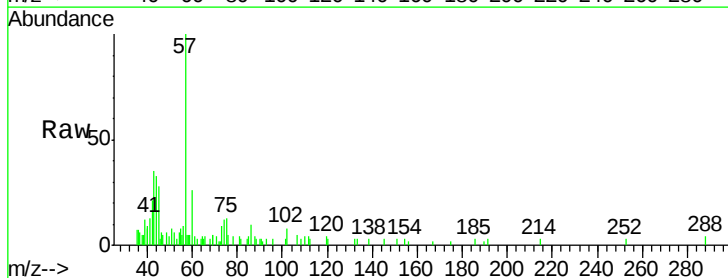
Tgt Ion: 88 Resp: 238

Ion Ratio Lower Upper

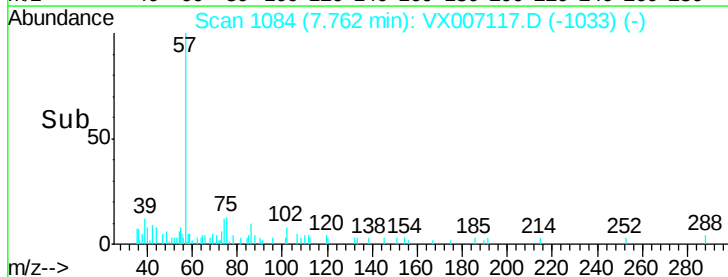
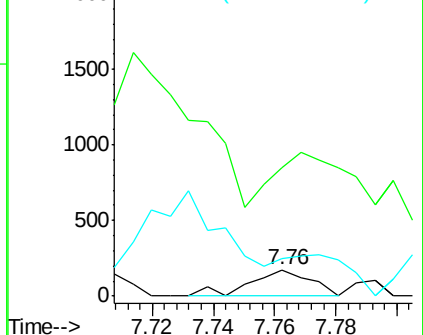
88 100

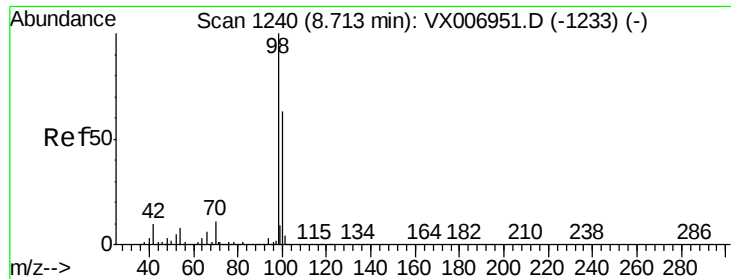
43 0.0 22.2 33.4#

58 0.0 51.0 76.4#



Abundance Ion 88.00 (87.70 to 88.70): VX0  
Ion 43.00 (42.70 to 43.70): VX0  
Ion 58.00 (57.70 to 58.70): VX0





#50

Toluene-d8

Concen: 51.822 ug/l

RT: 8.71 min Scan# 1240

Delta R.T. 0.00 min

Lab File: VX007117.D

Acq: 18 Jan 2019 04:42

Instrument :

MSVOA\_X

ClientSampleId :

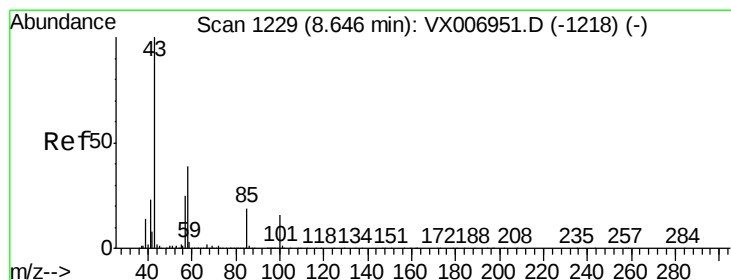
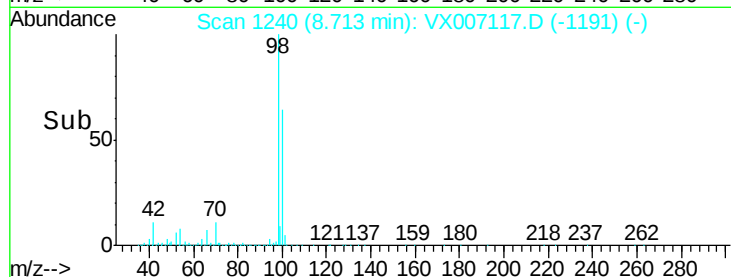
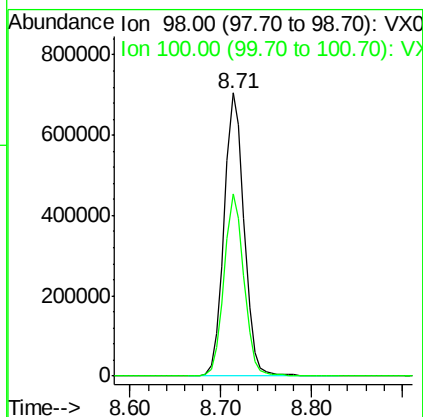
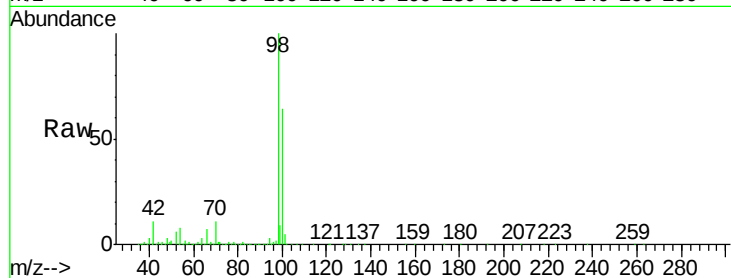
BFB

Tot Ion: 98 Resp: 1085220

Ion Ratio Lower Upper

98 100

100 64.0 52.0 78.0



#51

4-Methyl-2-Pentanone

Concen: 11.614 ug/l

RT: 8.62 min Scan# 1224

Delta R.T. -0.03 min

Lab File: VX007117.D

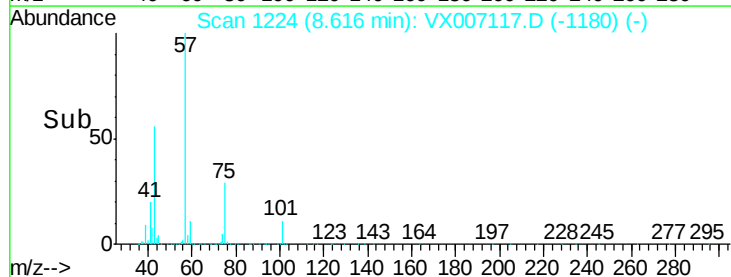
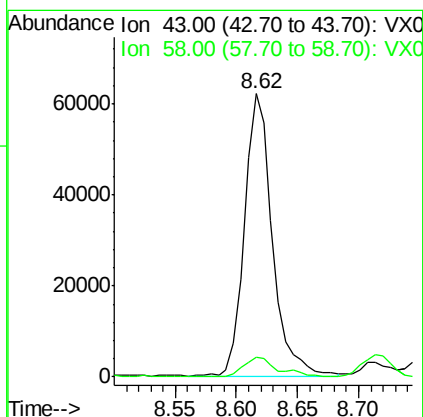
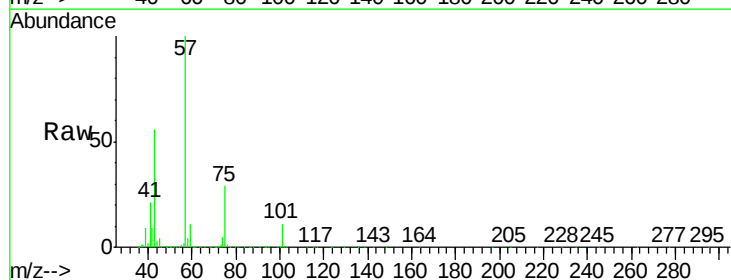
Acq: 18 Jan 2019 04:42

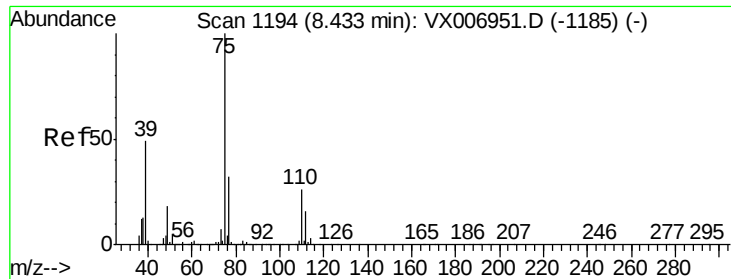
Tgt Ion: 43 Resp: 98038

Ion Ratio Lower Upper

43 100

58 8.7 31.8 47.6#





#54

cis-1,3-Dichloropropene

Concen: 5.563 ug/l

RT: 8.62 min Scan# 1224

Delta R.T. 0.18 min

Lab File: VX007117.D

Acq: 18 Jan 2019 04:42

Instrument :

MSVOA\_X

ClientSampleId :

BFB

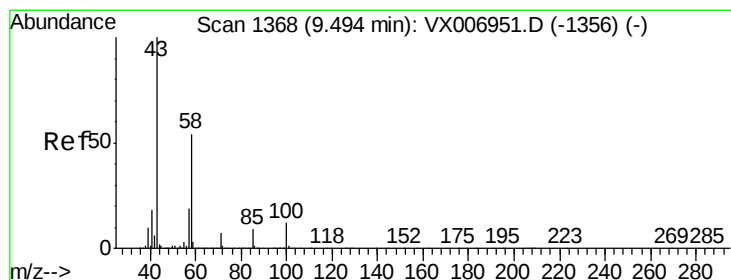
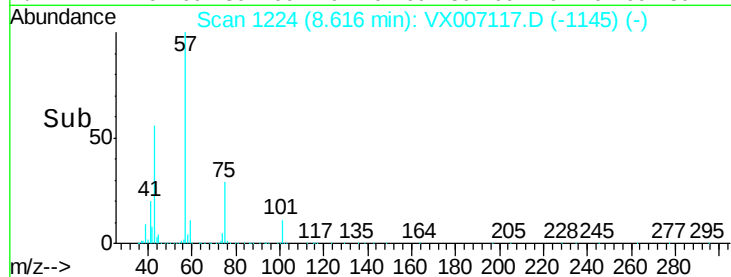
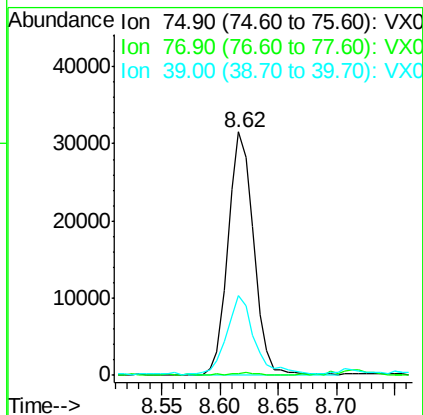
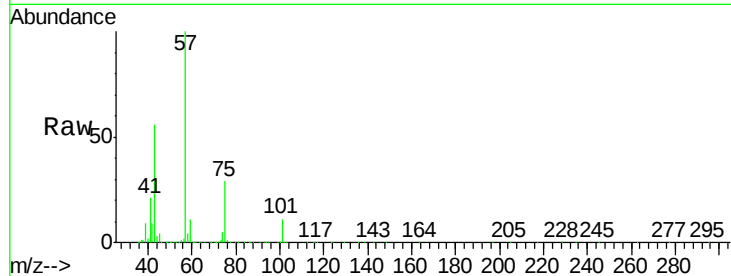
Tot Ion: 75 Resp: 48559

Ion Ratio Lower Upper

75 100

77 0.3 26.2 39.2#

39 32.4 36.7 55.1#



#59

2-Hexanone

Concen: 8.063 ug/l

RT: 9.54 min Scan# 1376

Delta R.T. 0.05 min

Lab File: VX007117.D

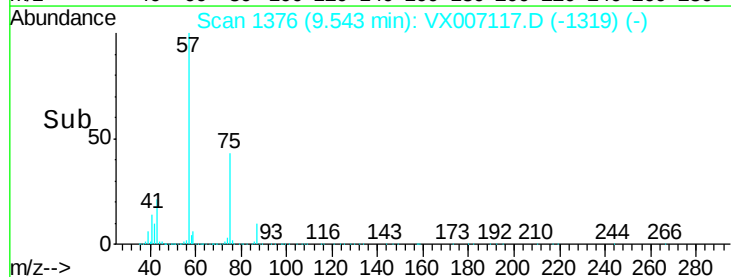
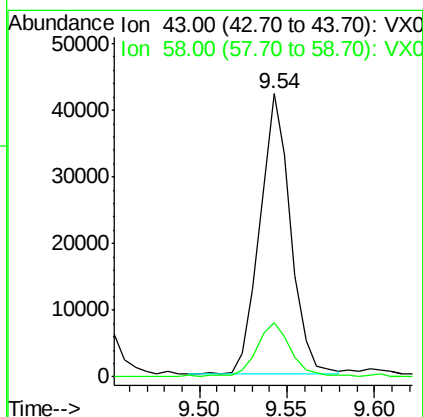
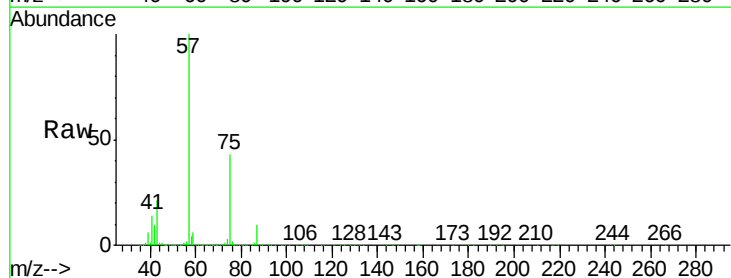
Acq: 18 Jan 2019 04:42

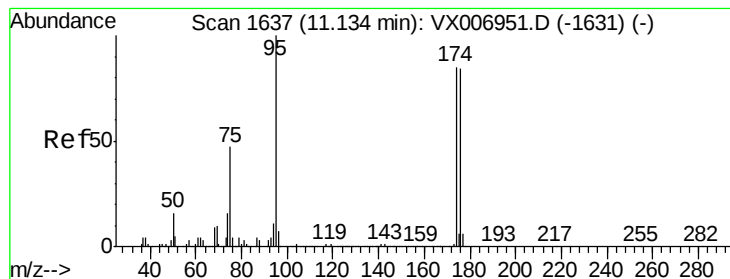
Tgt Ion: 43 Resp: 51870

Ion Ratio Lower Upper

43 100

58 21.7 27.7 83.1#





#62

4-Bromofluorobenzene

Concen: 53.330 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. 0.00 min

Lab File: VX007117.D

Acq: 18 Jan 2019 04:42

Instrument :

MSVOA\_X

ClientSampleId :

BFB

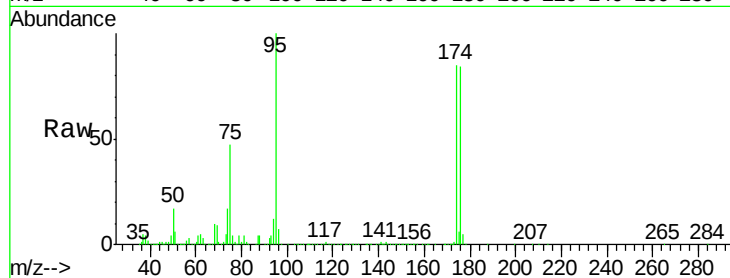
Tot Ion: 95 Resp: 389340

Ion Ratio Lower Upper

95 100

174 92.9 0.0 182.2

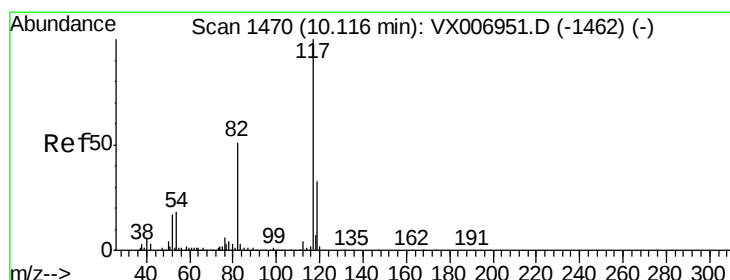
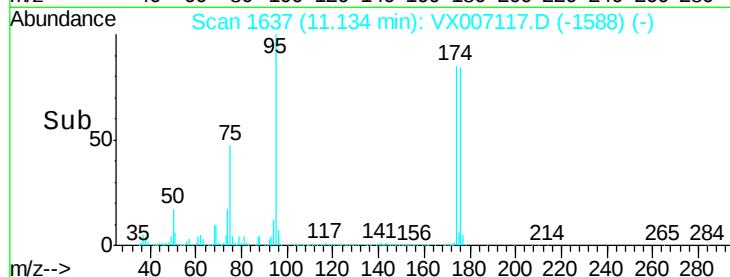
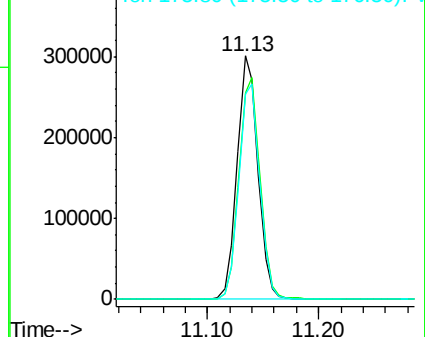
176 89.5 0.0 178.8



Abundance Ion 94.90 (94.60 to 95.60): VX006951.D (-1631) (-)

Ion 173.80 (173.50 to 174.50): VX006951.D (-1631) (-)

Ion 175.80 (175.50 to 176.50): VX006951.D (-1631) (-)



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 10.12 min Scan# 1470

Delta R.T. 0.00 min

Lab File: VX007117.D

Acq: 18 Jan 2019 04:42

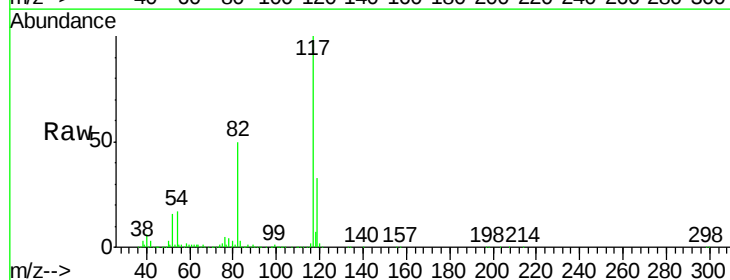
Tgt Ion: 117 Resp: 863583

Ion Ratio Lower Upper

117 100

82 49.8 41.0 61.6

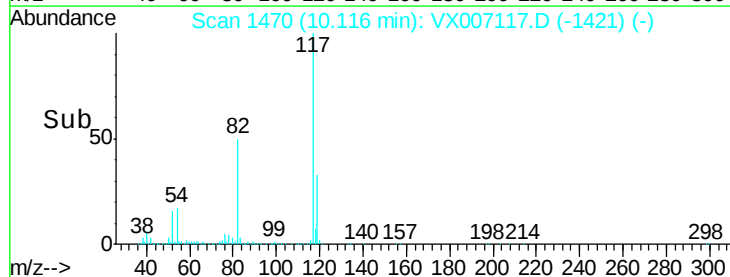
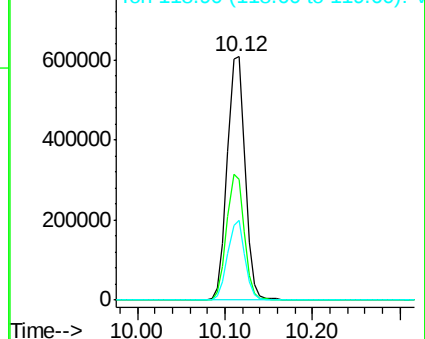
119 32.7 25.4 38.0

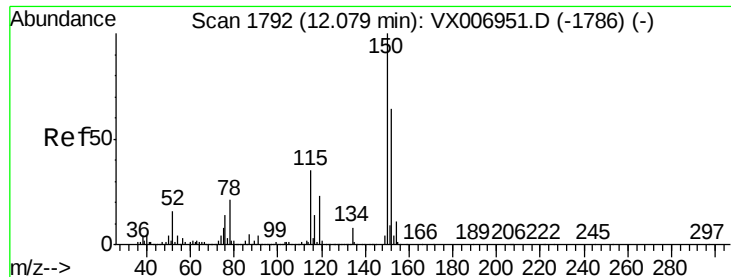


Abundance Ion 116.90 (116.60 to 117.60): VX006951.D (-1462) (-)

Ion 82.00 (81.70 to 82.70): VX006951.D (-1462) (-)

Ion 118.90 (118.60 to 119.60): VX006951.D (-1462) (-)



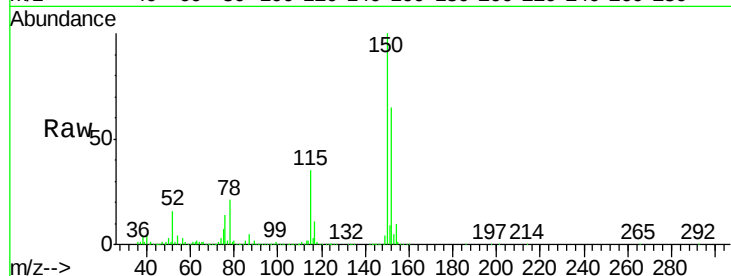


#72

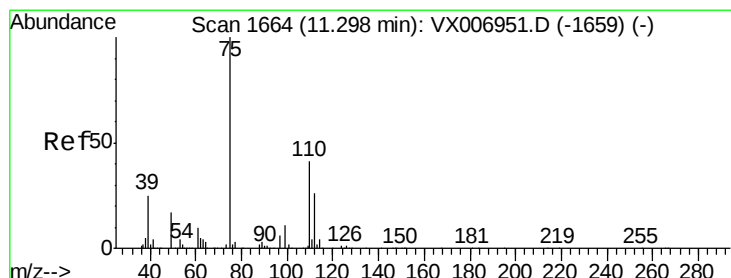
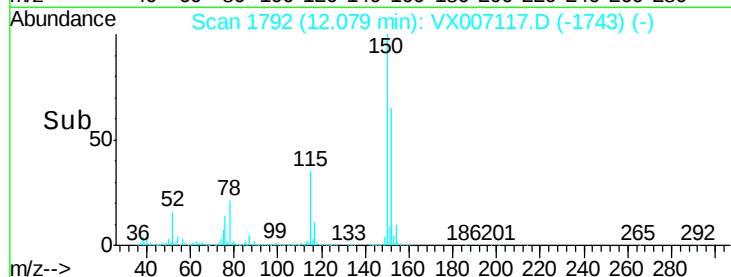
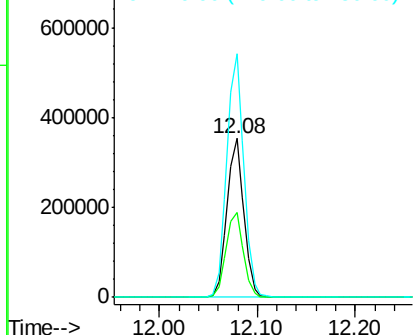
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.08 min Scan# 1792  
Delta R.T. 0.00 min  
Lab File: VX007117.D  
Acq: 18 Jan 2019 04:42

Instrument :  
MSVOA\_X  
ClientSampleId :  
BFB

Tot Ion:152 Resp: 424632  
Ion Ratio Lower Upper  
152 100  
115 55.1 39.1 117.2  
150 154.9 0.0 344.8



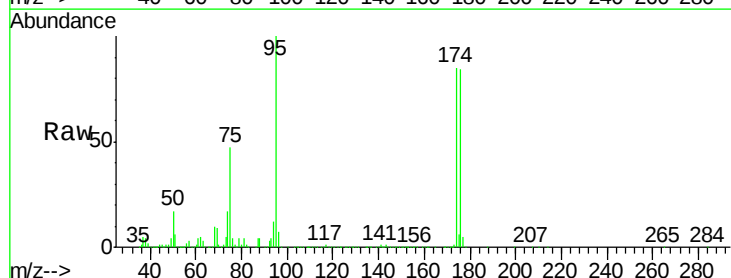
Abundance Ion 151.90 (151.60 to 152.60): V  
Ion 114.90 (114.60 to 115.60): V  
Ion 149.90 (149.60 to 150.60): V



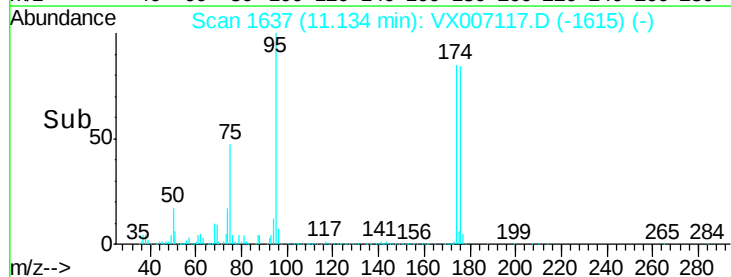
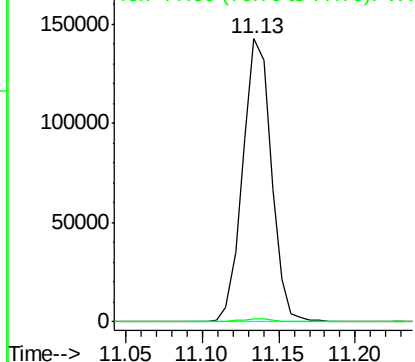
#76

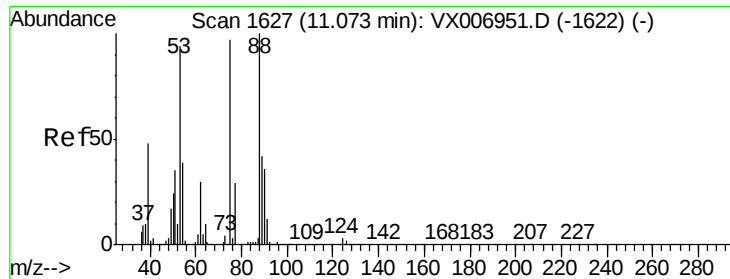
1,2,3-Trichloropropane  
Concen: 21.521 ug/l  
RT: 11.13 min Scan# 1637  
Delta R.T. -0.16 min  
Lab File: VX007117.D  
Acq: 18 Jan 2019 04:42

Tgt Ion: 75 Resp: 185186  
Ion Ratio Lower Upper  
75 100  
77 1.6 18.5 55.5#



Abundance Ion 74.90 (74.60 to 75.60): VX0  
Ion 77.00 (76.70 to 77.70): VX0

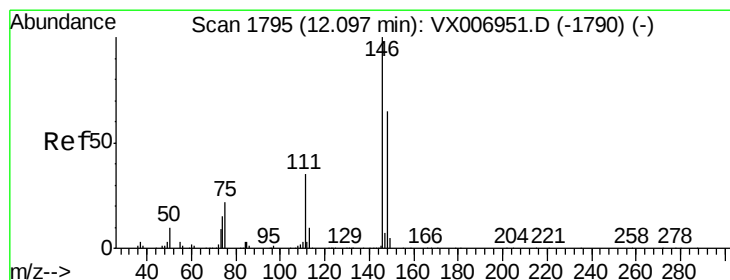
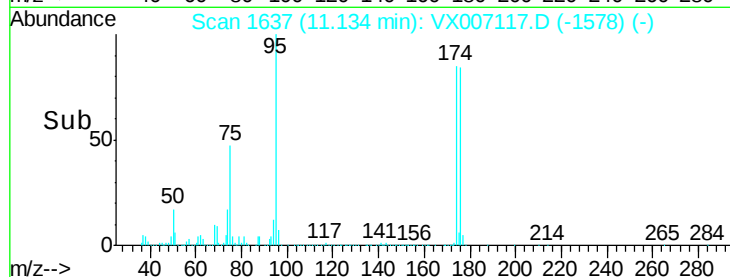
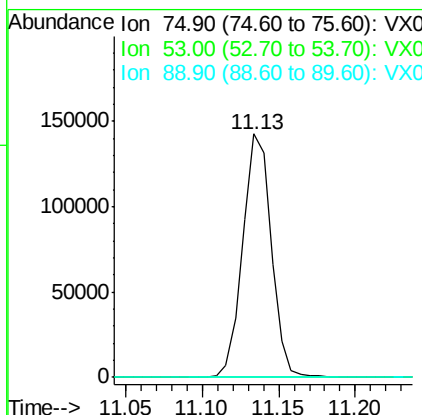
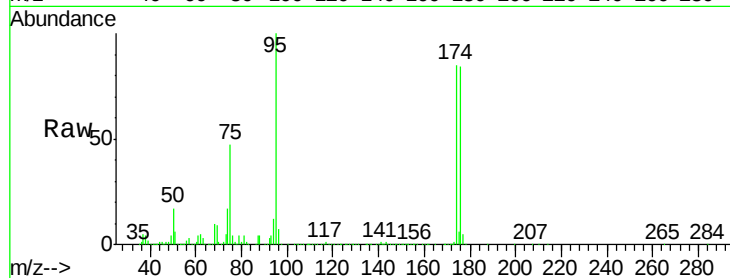




#81  
trans-1,4-Dichloro-2-butene  
Concen: 63.816 ug/l  
RT: 11.13 min Scan# 1637  
Delta R.T. 0.06 min  
Lab File: VX007117.D  
Acq: 18 Jan 2019 04:42

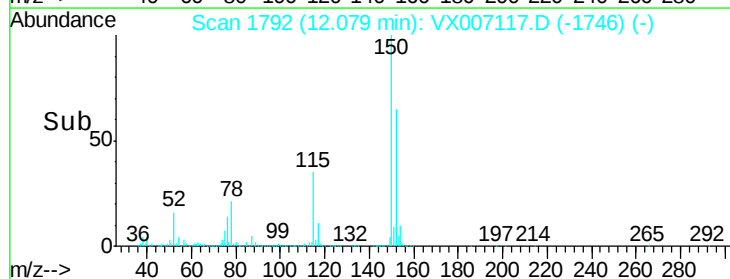
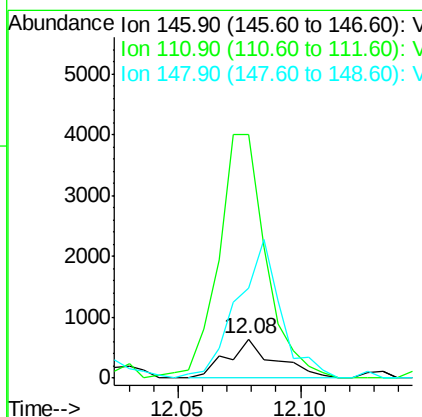
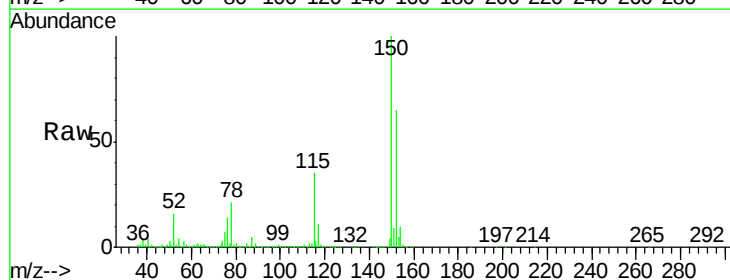
Instrument :  
MSVOA\_X  
ClientSampleId :  
BFB

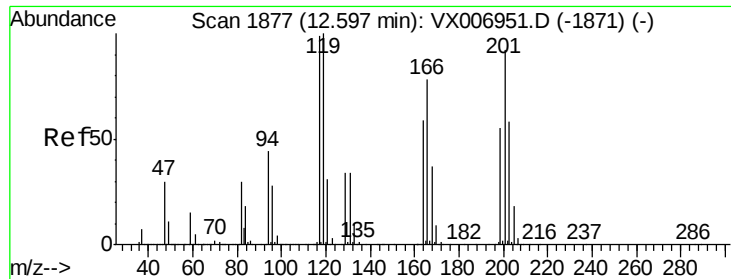
Tot Ion: 75 Resp: 185186  
Ion Ratio Lower Upper  
75 100  
53 0.2 79.7 119.5#  
89 0.0 38.0 57.0#



#88  
1,4-Dichlorobenzene  
Concen: 0.206 ug/l  
RT: 12.08 min Scan# 1792  
Delta R.T. -0.02 min  
Lab File: VX007117.D  
Acq: 18 Jan 2019 04:42

Tgt Ion:146 Resp: 871  
Ion Ratio Lower Upper  
146 100  
111 619.7 18.1 54.1#  
148 325.4 31.9 95.9#





#90

Hexachloroethane

Concen: 2.920 ug/l

RT: 12.51 min Scan# 1863

Delta R.T. -0.08 min

Lab File: VX007117.D

Acq: 18 Jan 2019 04:42

Instrument :

MSVOA\_X

ClientSampleId :

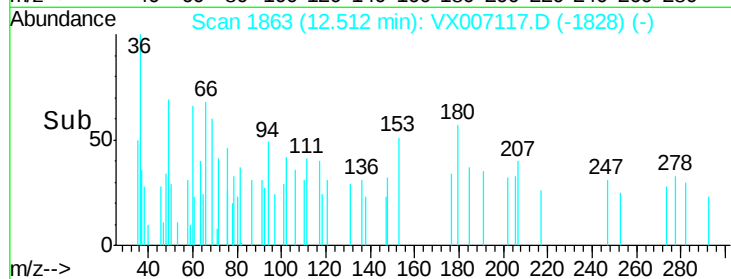
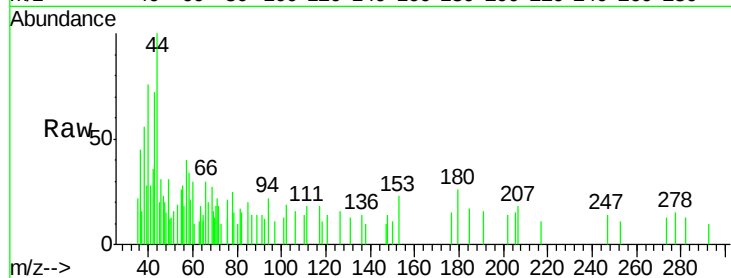
BFB

Tot Ion:117 Resp: 53

Ion Ratio Lower Upper

117 100

201 103.8 42.9 128.7



Abundance Ion 116.80 (116.50 to 117.50): V

Ion 200.70 (200.40 to 201.40): V

